a heat transfer medium interposed between the sub-surface and said focus ring, said heat transfer medium being so disposed as to improve thermal conductivity between the sub-surface and said focus ring to be higher than in a case with no thermal transfer medium;

a clamp configured to press said focus ring against the sub-surface;

wherein said clamp comprises a clamp frame having a contact portion which comes into contact with said focus ring from above, an extending portion extending downward from the contact portion along a side portion of said worktable, and an outer cover substantially made of heat-resistant synthetic resin and configured to cover said clamp frame, and

wherein said cooling mechanism maintains said target substrate and the focus ring at substantially the same temperature.

Please add the following new claims:

25. (New) The device according to claim 21, wherein said heat transfer medium consists essentially of the heat-resistance elastic member.

26. (New) The device according to claim 21, wherein said heat transfer medium consists essentially of a heat transfer medium gas, and said apparatus further comprises a gas passage to supply the heat transfer medium gas between the sub-surface and said focus ring.

27. (New) The device according to claim 21, wherein said heat transfer medium consists essentially of an inert gas or a gas containing part of a composition of a process gas to be supplied around said worktable.

28. (New) The device according to claim 21, wherein said focus ring consists essentially of a conductive material.